February 10, 1989

CASE NARRATIVE

Laboratory Name:	IT Analytical Services/Pittsburgh, Pennsylvania		
Laboratory ID:	ITPA		
Case Number:	11187		
Contract Numbers:	7470		
Sample Numbers:	EAF59	EAF62	EAF66
	EAF60	EAF63	EAF67
	EAF61	EAF65	EAF68
SDG Number:	EAF59		

Shipment

Nine soil samples were received at the ITAS Pittsburgh Laboratory on January 6, 1989. The samples were received without custody seals and the Chain-of-Custody record and Traffic Report did not cross reference the sample tag numbers.

Volatile Analysis

The samples were analyzed on January 11, 12, and 16, 1989. Sample EAF63 and EAF66 were chosen for MS/MSD analysis.

The concentrations of cis-1,3-dichloropropene (70.3 micrograms per liter) and trans-1,3-dichloropropane (29.4 micrograms per liter) deviated from the recommended 50 micrograms per liter in the continuous standard. The laboratory was unable to obtain a standard with a 50/50 microgram per liter isomer ratio.

Files 6714, 6715, 6718, 6719, 6720, 6721, 6723, 6795, 6797, 6798, 6799, 6800 and 6801 were processed dated with the incorrect year. The files have been amended by hand and were correctly edited for the Formaster files.

Due to the sandy nature of the samples, EAF62 and EAF65 have internal standards outside QC limits. The samples were analyzed to confirm the outliers. The internal standard problem also caused surrogate toluene-d_8 for sample EAF62 to be outside QC limits in the initial analysis.

Semivolatile Analysis

The samples were analyzed on January 23, 26, 28, and 30, and February 2 and 3, 1989. Sample EAF66 was selected for MS/MSD.

Samples EAF59 had surrogates 2-fluorobiphenyl and terphenyl outside QC limits. The sample was reextracted and analyzed with only 2-fluorobiphenyl outside the limit.

Sample EAF68 had surrogates nitrobenzene, 2-fluorobiphenyl, phenol and 2-fluorophenol outside QC limits. The sample was reextracted and analyzed with only 2-fluorobiphenyl outside the limit.

The spike recovery of pyrene was outside QC limits for sample EAF66 MS/MSD.

Library searches for the unknown peaks greater than ten percent of the closest INT. STD. were searched using Finnigan's FLSRQ program. This forward library search program generates a quantitation list; however, this quantitation list does not use RIC area and the amount calculated is not related to RIC area of the Internal Standards. This quantitation list was transferred to Formaster and there edited to reflect RIC area, RIC INT. area and the correct concentration. A hand calculation sheet is included in the data packet.

Pesticide/PCB

The samples were analyzed on February 2, 3, and 4, 1989. Sample EAF66 was selected for MS/MSD. Sample EAF63 was extracted and analyzed as a medium level soil.

Due to the nature of the samples, hexane blanks were incorporated into each sequence in an attempt to minimize matrix interference carryover. These were not entered into the Formaster and, therefore, had to be handwritten on Forms 8E. An alumina cleanup was performed on each sample and several were diluted for the same reason. However, some problems were still encountered due to the effect of these samples on the gas chromatograph system:

- Dibutyl chlorendate percent recoveries for samples EAF61, 66, 66MS, and 66 MSD are above the QC advisory limits.
- The percent recovery for 4,4'-DDT in the MS and MSD were also above the QC advisory limit.
- On the primary analysis, the percent difference for methoxychlor in the second individual A was above 20 percent, however, methoxychlor was quantitated on the confirmation analysis and was not detected.
- On the confirmation analysis, the percent difference for 4,4'-DDT was above 15 percent on the final individual A, but was used for quantitation. Also, the percent difference for endrin in the one final individual B was above 20 percent.

Release of the data contained in this hard copy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature:

Steven H. Cochenour

2/10/89